EAF *and* HARD OF HEARING CHILDREN *in* ILLINOIS

ILLINOIS COMMISSION *for*
HANDICAPPED CHILDREN

DEAF
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in
ILLINOIS

ILLINOIS COMMISSION FOR HANDICAPPED CHILDREN
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FOREWORD

This pamphlet, one of a series published by the Com mission for Handicapped Children, is intended to serve two primary functions. In the first place, it furnishes a description of the total present program for deaf and hard of hearing children in Illinois, and, secondly, it attempts to measure the adequacy of that program. Included also is a statement of the philosophy which must underlie any attempt to serve the deaf and hard of hearing child, as well as a summary of available data concerning the number of such children.

The description of facilities available in Illinois provides a rather encouraging list. However, the adequacy of the program when measured against an ideal set-up reveals much to be desired. Consequently, the fulfillment of the second part of the dual function of this publication should result in an intensification of effort on the part of all interested citizens in order that the group of children with hearing disabilities may receive the help they need to realize their potentialities.

Considerable progress is at present being made toward the provision of a complete program. This progress probably will cause this report to be incomplete in certain respects due to advances that will be made between the time it is written and final publication. For any such inaccuracies we need not apologize, since, if they occur, they will result from the advancement of the program.

Acknowledgement is due to Miss Mary Thompson, Mr. Daniel Cloud, Dr. Walter H. Theobald, Miss Evelyn Horton, and Miss Jayne Shover, who gave generously of their time in reading the manuscript and advising the staff, and to Miss Elizabeth Mills who compiled the material and prepared the original manuscript.

Howard E. M. Miller,
January 1947 Executive Director

DEAF AND HARD OF HEARING CHILDREN IN ILLINOIS

Nature and Significance of Defective Hearing

Those who have defective hearing have long recognized that it is a serious handicap, but only within comparatively modern times have medical science, and a greater public understanding of the problems which an impaired sense of hearing can cause, made it possible by painstaking effort to overcome these problems. It is a far cry from the situation in Roman days, when under church and civil law the deaf were classified as minors, i.e., mentally irresponsible because they could not talk, to the present, when with proper education and training, a congenitally deaf child may learn how to share in the activities of the hearing world through the use of speech and lip reading and so may achieve the full privileges and responsibilities of normal adult life.

This does not imply that it is easy for a deaf child to reach such a degree of normalcy or that existing programs are adequate to assure each child the service he needs to reach his maximum potentialities. In many ways, those with defective hearing have been the most neglected of physically handicapped children, and the problem of meeting their needs fully has been complicated by certain long standing differences of terminology and of opinion regarding educational methods. There is also a lack of coordination in the services that do exist,

and piecemeal efforts have not resulted in a complete and continued service to the child during the whole period of his need.

Our present philosophy recognizes that the child with hearing loss has the same educational and social needs as other children, and if he is to have equivalent opportunity to become a happy and useful adult, he must have highly skilled services from his earliest years. If we are to assure him his basic right to communication, to education, to work and to participate in the life of his community, we must find him early and make available to him all necessary medical care and offer him the educational program especially adapted to his individual need. We must train him for work which he can perform well, which he enjoys and in which opportunity for employment is available to him. We must prepare him for and accept him into the social life of his community. Throughout this program we must always see the child as an individual and recognize his individual abilities and needs. He is primarily a child and then a child with special needs.

In a discussion of the problems of defective hearing it is necessary to understand certain terms which are commonly used. These include:

Audiometer—A device for measuring degree of hearing loss. There are two principal types, the *group* or phonograph audiometer by which a number of persons can be tested simultaneously, and the *puretone* or individual audiometer by which more exact individual tests can be given.

Decibel—The minimum unit of preceptible hearing for a human ear. Degrees of hearing loss are commonly expressed in numbers of decibels.

Otologist—A physician specially trained in treatment of diseases of the ear. Otological examination means examination by such a medical specialist.

Definition—The term "deaf" is used glibly in referring to persons with auditory defects. Strictly speaking, deafness is the inability to perceive sound. In reality, only a small number of those persons popularly called deaf are wholly deprived of their sense of hearing. Persons with defective hearing are distributed into what is almost a normal curve, with the degree of hearing deficiency or decibel loss ranging from total deafness to slight deviations from "normal" hearing. A hearing loss of more than nine decibels, as shown on a group audiometer test, is considered to be significant and to indicate a need for special attention.

Persons with defective hearing fall into two main groups, the deaf and the hard of hearing. There has been much discussion and disagreement among specialists in the field as to what criteria should be adopted in differentiating between these two groups. The following terminology was recommended by the 1930 White House Conference Committee on Child Health and Protection:[1]

> "The deaf are those who were born either totally deaf or sufficiently deaf to prevent the establishment of speech and natural language; those who become deaf in childhood before language and speech were developed; or those

[1] *White House Conference on Child Health and Protection*, Volume III F. *Special Education: The Handicapped and the Gifted*, p. 277.

who became deaf in childhood so soon after the natural establishment of speech and language that the ability to speak and understand speech and language has been practically lost to them. "The hard of hearing are those who established speech and ability to understand speech and language, and subsequently developed impairment of hearing. These children are sound conscious and have normal or almost normal attitudes toward the world of speech in which they live."

From the standpoint of education, the differentiation is made on the basis of ability to use language both in hearing and speaking. Because the avenues of instruction open to the deaf child are not the same as those for the hard of hearing child, it is important that they be taught separately. This does not mean that both groups should not be taught to use oral speech as a means of communication, but that the methods employed in teaching each group must of necessity be different. The deaf child is dependent upon the avenue of sight and much must be presented to him visually. On the other hand, when a child has some residual hearing this must be utilized in the teaching process, if it is to be saved from deterioration. There may be a need to supplement useable hearing by the use of hearing aids and lip reading depending upon the severity of the hearing loss.

While there are many persons who have total or partial hearing loss from birth, the majority of hearing defects are acquired. The age of the person at the onset of the impairment determines in large measure the degree to which he is handicapped by the loss, thus instruction of the congenitally deaf and those whose hearing was lost before speech developed is most difficult

because the former have never heard sound and neither has any natural speech.

Significance to the Individual and Society — It is evident that the ability to communicate with others is vital to the growth and development of a young child. When a child attains the age at which he seeks an explanation of the world about him, he begins by asking the "why" of the things he sees and hears, touches, tastes and smells. In so doing, he is building the foundation for more formalized instruction.

To a child with defective hearing this range of experience is limited by the nature of his handicap. Not only is he unable to perceive many of the sounds in his environment, he is also unable to understand many of the sense impressions which he is physically capable of receiving. Frequently, awkward speech limits his ability to ask questions. When questions are posed explanations may be so oversimplified that in the end the child is left with erroneous impressions. Because so much of early learning is transmitted by word of mouth, his education and social development are apt to be retarded unless special provision is made when he is very young to help him overcome his handicap. The child with a hearing loss must be taught how to overcome the barriers which separate him from the hearing world if he is to benefit by the type of education which will help him to build a life as normal and satisfying as possible.

There are many such children who are not going to achieve this goal either because their hearing losses are unsuspected or because the training and educational program available to them is inadequate and unrealistic. These children are socially and educationally handicapped now and will be additionally so in adult life

because of their difficulties in finding satisfying employment and in their social adjustment.

A hypothetical but typical case study will serve to illustrate the problems facing the child with an undiscovered hearing loss:

Alice is an eight year old whose hearing defect has gone unnoticed by her parents and teachers. Because the defect is not recognized she has not had the benefit of medical care which might have improved her hearing, nor has she had the benefits of special training to break down the barriers. Among her playmates Alice is regarded as "dumb" and is ridiculed by them, for she always seems to do and say things which are out of place. These scenes have been a source of painful embarrassment to her and more and more she tends to shy away from group activities and withdraw into herself. The emotional strain of attempting to live a normal life in a "hearing world" is proving too hard a battle for her.

At school Alice cannot use the intelligence which she possesses because she cannot always understand the questions which are asked of her nor can she hear the explanations of the teacher, so she has had to repeat a grade. This failure has increased her dislike for school and her sense of frustration. The teacher finds her inattentive, indifferent and restless.

What will become of Alice after a year or more of education which ignores her special needs? She may become a behavior problem as well as an educational one. She may try to compensate for her inadequacy by resorting to anti-social acts and become one of the delinquents of the community. She may merely leave school at an early age, totally unequipped to meet the problems which will face her.

When this child reaches adulthood, what are her prospects of finding employment? She has a physical handicap; she has a personality problem; she has an inadequate education; and she has been given no guidance in planning or preparing for a suitable vocation in which she can find satisfaction. In short, Alice has been offered the same training as the normal hearing child, but since it was improper training she has not only been unable to profit by it, but it has actually contributed to her personality difficulties and social maladjustment.

Special training for the acoustically handicapped child often fails to cope with every phase of his problem. The child who is educated in the residential school may not have been taught to communicate orally. The child who is in a special class for the hard of hearing but has had no vocational training or guidance, the child who has been taught lip reading but whose speech has gone uncorrected, has not received all the training necessary to afford as complete an adjustment as possible to his handicap.

It must be remembered that the final goal of education is as normal an adjustment to life as is possible. To achieve that goal every aspect of the problem confronting the child must be understood and the coordinated services of all of the health, educational and welfare agencies of the state should be employed to help him make the adjustment successfully.

Our society cannot afford to lose or deprive itself of the active participation of those individuals whose hearing is defective. The activities in which they can engage, when properly trained, far outnumber those into which they cannot enter, and it is essential that they be given the same opportunity as other citizens to share in the responsibilities and satisfactions of community living.

The costs of the special services which make it possible for them to become full members of society are sufficiently great so that measures to prevent the occurrence or progress of hearing loss more than pay for themselves. However, for those whose hearing is already defective the cost of adequate medical, educational, psychological, social and vocational service is much less than that of allowing them to grow up poorly educated, isolated socially, and dependent upon or enemies to society instead of being an independent adult contributing to the general welfare.

Association with Other Defects—Deafness is commonly accompanied by defective speech because speech is learned by imitation and the deaf child has had no opportunity to hear either his own voice or that of others. Some variation from normal speech is associated with any severe hearing loss and corrective speech work is therefore one of the essential services to the acoustically handicapped.

Mental retardation does not occur in any greater proportion among children with hearing loss than among other children. Not infrequently there is confusion and failure to distinguish between mental retardation and the child's difficulty in learning because he does not hear speech. Complete medical and psychological study should be recognized as preliminary to classifying any child as mentally defective, since the child with unrecognized severe hearing defect may be so handicapped as to appear to have defective intelligence though potentially he has normal or near normal learning capacity.

Hearing defects are frequently found among children with cerebral palsy, since the damage to the brain causing this condition may involve the center controlling

hearing. When such a double handicap is present, the treatment must take into consideration the child's total need and help as far as possible both the hearing defect and the faulty motor control resulting from the cerebral palsy. Since cerebral palsy is more obvious than the hearing defect there is a danger that it alone will receive treatment and the problems resulting from the child's hearing loss will be ignored or incorrectly classified as mental retardation.

Extent of The Problem

There has been no actual count of deaf and hard of hearing children in Illinois and arriving at an estimate of their numbers is not easy since previous studies in Illinois and elsewhere, from which we might derive a rate of incidence of hearing loss among children, either cover very small numbers, used inadequate study methods, or concern groups not strictly comparable in age. Despite these difficulties a review of such studies helps us arrive at a tentative figure for the probable number of children with defective hearing in Illinois.

Studies Outside of Illinois—The White House Conference on Child Health and Protection in 1930 estimated, on the basis of previous group audiometer tests on school children and reports on World War I draftees, that there were ten million people in the country whose hearing was impaired to a degree which interfered seriously with their educational and vocational progress and with proper social adjustment. It also estimated that three million children in the country suffer from impaired hearing. (The White House Conference was concerned with all children under 21 years of age.) This figure of three

million acoustically handicapped children has been rather widely quoted and has been cited by the American Academy of Ophthalmology and Otolaryngology in some of its published material on conservation of hearing.

In 1935-1936, the United States Public Health Service made an extensive survey of the health status of the general population in the United States, including a special study to find persons with hearing loss.[2] The study methods used included individual audiometric and otological examinations. Since the National Health Survey made its breakdown by ten year groups only above the age of five years, some adjustment is necessary to apply its rates to the Illinois population under 21. Assuming for our purposes that the rate of hearing loss for persons 15 to 24 is reasonably applicable to those 15 to 20, we get the following figures when we apply the rates to Illinois population figures: Number of persons with fairly severe hearing impairment under 5 years of age—252; 5 to 14 years of age—3,019; 15 to 20 years of age—2,583; a total of 5,854. Averaging rates for all degrees of hearing loss, and between males and females, the following percentages were obtained for persons in the age groups in which we are interested: Under 5 years of age—.046 percent; 5 to 14 years of age—.26 percent; 15 to 24 years of age—.32 percent. Persons reported by the study as having impaired hearing were those with an average hearing loss for both ears of 47 decibels or more in the speech range, a fairly severe impairment. Any child of school age with so severe a hearing loss would need special education facilities. The study showed that the incidence of hearing loss increased with advancing age and that in all age groups, except

[2] Willis C. Beasley, "The General Problem of Deafness in the Population," *The Laryngoscope*, (September, 1940), pp. 856-905.

that from 25 to 34 years, there was more impaired hearing among males than among females. The population sample study was entirely urban, but there is no factual information that would indicate any significant rate of difference in rate of hearing defect between urban and rural populations.

The American Society for the Hard of Hearing has, for some years, collected figures on hearing tests made on school children in different parts of the country. Their figures published in June, 1945 cover 2,478,883 cases tested by either group or puretone audiometers. One hundred nine thousand two hundred twenty-four of these children, or 4.4 percent of all tested, showed evidence of hearing impairment. It is interesting to note that during the years the American Society for the Hard of Hearing has been collecting these figures there has been a definite and rather steady decrease in the percentage of hearing defects found, and it seems fair to assume that as hearing testing programs have been carried on there has been concurrently a considerable amount of successful preventive work done.

If we take 4.5 percent as maximum for the occurrence of any hearing defect for children of school age and apply this rate to the Illinois population, we get a figure of 88,575 children between the ages of 5 and 20. This figure probably represents the greatest number of children of school age whose hearing might require some investigation beyond the initial group test.

Studies in Illinois—In 1940, the State Superintendent of Public Instruction asked 180 school superintendents to estimate numbers of handicapped children within their districts. Those reporting indicated that 0.9 percent of their students were either deaf or had a hear-

ing impairment so severe that they were in need of special education facilities.[3] This rate, applied to the total Illinois population between the ages of 5 and 20 in 1940, would indicate that there were 17,750 children with hearing defects sufficiently severe to need a special educational program.

The most extensive hearing tests on school children in Illinois were made by a vision and hearing survey done by WPA and sponsored by the Illinois Society for the Prevention of Blindness. Group audiometer tests were given by specially trained lay people and nurses. Figures for the period October 1, 1941, to January 31, 1943,[4] covering a majority of counties in the state and including rural and urban public and parochial schools, showed a total of 158,956 children tested, with evidence of hearing defects in 7,309 or 4.6 percent of the total, and with medical follow-up on 2,782, or 3.1 percent of those showing auditory defects. Approximately 1 percent, or 19,683 of the children tested, appeared to have a hearing loss sufficient to necessitate some special educational program. These figures are in substantial agreement with those of the American Society for the Hard of Hearing and with other more limited studies not recorded here.

The 1930 United States Census attempted to count the number of totally deaf persons in each state. These were defined as those who had become totally deaf before the age of 8 years. As this count depended on verbal reports to lay enumerators without any examination procedure, the figures are unreliable and probably definitely too low. Six hundred and twenty-five such per-

[3] *The Illinois Plan for Special Education of Exceptional Children—The Physically Handicapped*, Superintendent of Public Instruction, Circular Series "A", No. 12, p. 10.

[4] Unpublished figures secured from Chicago Society for the Hard of Hearing.

sons under 20 years of age were reported in Illinois. Since 1930, the Census Bureau has not attempted to count the deaf or blind because of the difficulty in securing reliable figures through available methods of enumeration.

Summary—From a review of these studies, we can arrive at a general estimate of the number of children in the state who may be in need of some special services because of impairment of hearing. The maximum estimate is that there are 100,000 children of school age whose hearing needs investigation beyond a group audiometer test. The majority of these will prove to have normal hearing upon puretone audiometric examination. A sizeable group, however, will need medical examination to establish the diagnosis and necessary medical treatment which may prevent further loss of hearing or improve or restore hearing to normal. From 5,000 to 20,000 of these children will have sufficiently defective hearing to make a special educational program necessary. In all probability there are at least 250 children of preschool age who have rather severe hearing loss and whose need for special medical and educational services is extremely important.

An Ideal Statewide Program

What are the elements that make up an ideal program of service to acoustically handicapped children? These services group themselves under prevention, case-finding, medical care, education, vocational training and placement, personal adjustment services and research. The problem of financing this ideal program is allied to the effective carrying out of all of these components.

The exact amount and the nature of the services needed by any given child will depend on the degree of his hearing loss, at what age the loss occurred, whether it is stationary or progressive, the child's intelligence, health and personality, the experiences he has had before such services are given, and the attitude of his family and his community toward his handicap. Not all children will require all the services described here, but unless all are available the urgent needs of some child will not be met.

Prevention—The desirability of preventing hearing loss when possible is obvious from the standpoint of humanity and of sound economics. Effective preventive measures differ according to whether the hearing loss is congenital or acquired. There is no known method of preventing some congenital hearing defects—these are, in effect, biological accidents which science does not know how to avoid. Certain other types of hearing defects, either present at birth or developed during later years, show a definite familial tendency and the prevention of their occurrence is a matter of eugenics. (The danger of transmitting defective hearing from parent to child increases with the intermarriage of persons from families showing such tendencies.)

The greater portion of defective hearing occurs as a result of disease or of accidents after birth. Various communicable diseases, including syphilis, meningitis, smallpox, and ordinary diseases of childhood, such as measles and scarlet fever, may cause hearing loss. Any measures which prevent such diseases, such as immunization, strict quarantine procedures and venereal disease control programs, are helpful in preventing the development of hearing defects through the control of the diseases which cause them. Such measures are closely

related to the presence of effective public health services in each community.

Good medical care for every person suffering from a condition which might lead to a hearing loss, including both the communicable diseases just referred to and diseases of the ears, nose, and throat, will prevent much loss of hearing. The ability to secure such medical care depends upon several factors, among these the education of the public to the recognition of its importance, the availability of properly qualified general and specialized medical practitioners, and provision of care at public expense for those for whom private care is not available.

Studies made to date, although not extensive, tend to indicate that elimination of preventable noise, especially in industrial and manufacturing processes, is of importance in hearing conservation. General safety programs, which are effective in accident prevention, will result in the prevention of some loss of hearing.

Case-finding—Case-finding is of major importance in any program for handicapped children and serves a dual purpose: as part of a program of prevention and as the first step in bringing about rehabilitation to those requiring it. In order to avoid hearing defects which may never be able to be alleviated in later years and to provide educational services which will be as effective as possible in preparing these children to take their places as contributing members of society, it is imperative that they be located at an early age.

The essentials of a case-finding program are:

1) A child accounting system which makes an annual survey of all children from birth to 21 years of age, noting those with obvious defects so that they may be referred to needed corrective and educational services.

This is a particularly important way of reaching pre-school and out-of-school children.

2) A hearing testing program covering all school children. Ideally, this should involve testing every child every year, but where this is not possible testing each child on entering school and every three years thereafter should be considered a minimum standard. In addition, children who have been under otological treatment or who have had one of the childhood diseases which might cause loss of hearing should be examined upon termination of medical treatment. Tests should be administered by trained personnel using the group audiometer for preliminary testing and the puretone audiometer for children showing signs of defective hearing in two group tests, for very young children, and for those being tested following medical treatment.

3) An annual medical examination of each school child. If this is done following the hearing test, children who have defective hearing can then be referred by the general physician to an otologist for further examination and treatment as indicated. In the course of the general examination any health factors which may have a bearing on hearing can be checked.

4) The education of the public, and especially parents and teachers, to recognize behavior which may suggest the presence of a hearing defect, and to recognize the conditions which may result in a hearing loss, such as frequent colds, running ears, and certain childhood communicable diseases. The importance of early medical examination upon recognition of this condition needs to be stressed in such education.

5) Follow-up service is an integral part of case-finding in all instances in order that the child with actual

or potential hearing loss is examined by the otologist promptly and is referred to other specialized services according to his need.

Medical Care—Adequate medical care is of the utmost importance in preventing hearing loss and in checking and slowing its progress when it is present. This means both good general medical care for those conditions which might result in complications leading to hearing defects and specialized care by highly trained physicians skilled in treating the ears. In an ideal program we will have, therefore, both general medical care of high quality and specialized services available to every child regardless of where he lives or the financial status of his family. This involves problems of distribution of general and specialized physicians and of organizing and financing medical care programs. There is increasing recognition today of the importance of assuring to the whole population adequate medical care of high quality. Certainly, measures which lead to better general medical care will result in the prevention of hearing loss in some cases.

In addition to private medical care, there are several different ways of providing care by medical specialists for children with actual or potential defective hearing. Ear clinics, both in established dispensaries or hospitals and on a traveling basis, are one way. While it is desirable that such specialized services be distributed throughout the state, most ear conditions are not acute medical emergencies and it is therefore usually feasible, when necessary, to take the child to the population center where specialists practice. The problem may be met in some instances, therefore, by providing transportation for the child to the specialist.

Many persons feel that a means of bringing more adequate medical services to children with actual or potential hearing loss is to be found in the broadening of medical care programs. Such programs are established on a basis of complete service to the handicapped child and assure statewide services to children with defects which come within the scope of the program.

Education—The ideal educational program for children with defective hearing must be based on the principles of a sound educational system for all children, using the best that is known in theory and method. It must constantly see the child as a unique personality, and be sufficiently flexible to meet his individual needs, carefully and scientifically determined. It must have as its principal objective preparing the child for full participation in the society around him, in as nearly normal a fashion as possible, and it should therefore be based on speech as the child's exclusive method of communication, accepting speech as "The God-given right of every deaf child to be equipped to meet the world in as normal a method as possible."[5] Any usable hearing which the child has, however little, should be trained and utilized to the maximum, in order to facilitate his education and to give him as rich an experience as possible. To this end, every child for whom a hearing aid has been recommended by medical specialists should have one, paid for from public funds if no private resources are available. The total program of special education for the child with defective hearing in both day and residential schools should be under the general supervision of the state superintendent of public instruction, to assure coordination of all educational efforts, and continuity of service to

[5] *Coordination of Effort for the Education of Exceptional Children*, U.S. Department of the Interior, Office of Education, (Bulletin 1935, No. 7), p. 21.

the child throughout his education, regardless of where he lives.

Preschool Deaf Child—Present-day experience in the education of the deaf points unmistakably to the fact that the success of the child in acquiring speech, skill in lip reading, and general academic knowledge is very directly related to how early intensive special training is begun. Many of the limitations noted in the educational achievement of deaf children are due to the fact that education was not begun early enough, or that there has not been close correlation between training in school and at home.

If the deaf child is to avoid several years of educational retardation, he must be taught before reaching the normal school age to acquire language which the hearing child picks up unconsciously in his preschool experience. Strong evidence in the actual recorded achievement of deaf boys and girls indicates that the deaf child of normal mentality whose special education is begun by the time he is three years old, who continues under the best type of modern instruction in speech, lip reading, and use of remaining hearing, may be expected to develop understandable and reasonably pleasant and fluent speech, and a high degree of skill in lip reading which enables him to understand all ordinary conversation in which he can observe the lips of the speaker, and to achieve progress through the academic grades close to that of hearing children of the same age. Since we know this ideal can be achieved, we must not be satisfied with less.

To attain maximum results, the education of the deaf child should begin in the home as soon as it is known that his hearing is impaired, and the ideal program

should provide expert counseling to his family so that they may give him the proper training in the home setting. Under such guidance the family can help the child to acquire the habit of reading lips and a good deal of skill in doing so. Through games and play exercises he can be trained in the coordination and habits of attention which will be useful to him in his later education.

The counselor could also help the family in understanding and meeting the child's special needs, direct them as needed to medical and psychological resources which would assure adequate medical care and an evaluation of individual aptitudes, and assist in making plans for his education.

The deaf child should have the benefit of association with other children of his own age, but because of his inability to communicate, this may be more difficult to achieve for him than for hearing children. This should be taken into consideration in determining whether he should attend nursery school. The desirability of this experience for the deaf child, as for any child, should be considered on an individual basis. When such experience seems indicated it should be offered in a regular nursery school setting with hearing children in attendance. This assumes a really good nursery school program, since such a program is highly flexible and geared to meet the individual needs of each child.

Formal speech training is not a function of the home since it must be given by highly trained special teachers, but the family, if given some guidance, can encourage and help the deaf child to make his first efforts in speech. Training in speech and lip reading by the special teachers should be started when the child is three years old. The three year old deaf child has, however, all the other needs of any other child his age and it is therefore most im-

portant that the special instruction in speech and lip reading be part of a total program of training which takes into consideration his physical, mental, social and emotional development.

Special Classes—Classes for the deaf in the local public schools should be established wherever enough children can come together to form such a class. Assuming that education of these children is begun by the time they are three years old, in some school systems they are expected by the age of eleven, after eight years of specialized instruction, to be able to join the regular classes of hearing children of their own age, returning to the special teacher for supplementary speech correction, lip reading, and acoustic training. Whether or not the majority of children can make progress as rapid as this, it is generally agreed that under this plan there should be little grade retardation, and that by high school they should be able to attend all classes with hearing children, continuing to have some corrective speech training. It is obvious that this early experience in school work with hearing children is important to the normal social adjustment of the deaf child. In addition, he continues to live at home and have the same kinds of experience with his family and neighbors as do other children of the same age. Adaptation of the educational program to the hard of hearing child will involve—depending on the degree of his hearing loss—one or more of the following elements: advantageous position in the classroom and understanding of the handicap on the part of the regular teacher; lip reading; speech correction; acoustic training, i.e, training of remaining hearing with use of hearing aids. Lip reading, speech correction, and acoustic training are given as supplements to the regular classroom instruction with hearing children.

Given sufficient flexibility in organization and financing of public school districts, it should be possible to meet the needs of practically all hard of hearing children through day schools, using special classes or itinerant teachers as the needs of children indicate. The child with very severe hearing loss who needs a period of intensive instruction such as cannot be provided in the local public schools, should attend the State residential school for the deaf. In some instances arrangements might be made for boarding home care in a community maintaining special teaching service until the child reaches a point where he can manage satisfactorily with the help of an itinerant speech teacher. Intensive instruction at a university clinic or on the campus of a residential school during the summer vacation period might be another way of helping such children.

Residential Schools—The residential school will serve those children with severe hearing loss living in sparsely populated areas where it is impossible to establish in the local schools those special educational and vocational services which they require. It will also serve other children whose special needs, determined on an individual basis, can best be met in such a school.

Since a residential school serves as a substitute home while the child is in residence, it should offer, in addition to a complete educational program, a setting in which the child has supervision of his physical welfare and an opportunity for the social experiences and emotional growth which he would have in his own home. This means small living groups, with an adequate number of counselors and cottage parents who can hear. It means a definite plan for as much association as can be arranged with hearing children, using freely such devices as mixed

Scout troops, and other recreational arrangements. It means adequate field service, so that a close tie can be maintained between school and home. The five-day week should be encouraged where travel distances are not too great, so that children can spend week ends at home. There should be careful integration of the classroom and out-of-school program, so that the child is helped, through all his waking hours, to get the full benefit of the special instruction for which he has come to the school. This means, for instance, that he shall be expected and helped to use speech and lip reading at all times, not just in classes.

In general, by the time a student of the residential school is ready for high school, he should be prepared to enter a regular school with hearing students. However the residential school should offer a high school program for students who, because of a late start in school or because of loss of hearing during or just prior to entrance into high school, cannot attend the local public schools.

Double Handicaps—The deaf-blind are a very small group who present a most difficult and complicated educational problem. Experience has shown that with expert and intensive instruction it is possible to teach deaf-blind children to care for themselves, to communicate with others, and in some instances to receive a standard academic education. It is, therefore, a responsibility of society to see that they have an opportunity to receive this specialized education, and to make the progress of which they are capable.

Because there are so few deaf-blind children, it has proved feasible to undertake their special education only in residential centers. Actually only a small number of schools for the deaf or blind have developed facilities for

this group of children. Two of the eastern schools for the blind have established special units for the deaf-blind, where expert staffs give their full attention to the educational problem of these children. For the present it is probably more sound for other states to make provision to send these children to such centers, where enough deaf-blind children come together to make possible exhaustive study of the most effective methods of teaching them, than to try to educate them in their own state residential schools.

Since, with the deaf-feeble-minded, the mental defect is the major problem, the needs of these children should be met through programs for the mentally defective, with provision made for the additional special training made necessary by their defective hearing. The education of the deaf or hard of hearing is a difficult process at best, requiring intelligent responses from the child. For the acoustically handicapped child who is also retarded mentally, the academic achievement will be smaller than it is with the mentally retarded child who has normal hearing. The possibility of teaching this child to care for himself, to communicate with the hearing to some extent, and to do useful and simple work is sufficiently great to make it imperative that his needs be given attention.

The responsibility for the total educational program for children with defective hearing, whether in day or residential schools, should rest with the state superintendent of public instruction and his specialized staff. Only in this way can the child be assured equality and continuity of educational opportunity throughout his school years.

Teacher-Training—Teaching in classes for children with defective hearing is a highly specialized activity

which requires training in addition to sound basic teacher training. Many authorities believe that before undertaking the instruction of acoustically handicapped children the teacher should have, in addition to her special training, several years of experience in teaching hearing children. The special training will generally require at least an additional year of college work, often at the graduate level, and should be given in an institution which has adequate clinical facilities as part of the professional training. Any state maintaining good teacher training programs through universities and normal schools should make provision for preparing teachers for exceptional children.

Specific requirements for teachers of the deaf and hard of hearing should be outlined by the state superintendent of public instruction, and teachers in all programs receiving state support should meet those standards.

Vocational Training and Placement—For the handicapped child vocational guidance and training are of particular importance, since his physical difference may limit the types of work which he can do. A vocational program should therefore be an integral part of his education.

Before vocational training must come a good academic background upon which to base the vocational choice and training. This does not mean that all deaf children, any more than all hearing children, have capacity for or interest in continuing their education beyond the elementary or high school. It does mean, however, that their educational program ought to depend on their individual interests and capacities, without hearing loss

being an insuperable bar to vocational choice at any academic level.

In all vocational training of the handicapped, the emphasis should be on what the individual can do, and not on what he cannot do. Actually, if the educational job with the deaf or hard of hearing child has been well done, his handicap will limit his choice of a vocation only to a small extent. Such limitations would involve chiefly work actually utilizing the hearing sense, or work necessitating contact with the public in which the not entirely normal speech of the congenitally deaf might be a disadvantage. To the extent that any deaf or hard of hearing person has limited skill in speech or lip reading his vocational opportunities are of course limited.

Vocational guidance and counseling should be a part of the school program of every child beginning at about the junior high school level. This means that the child is given a survey of general types of work and an understanding of the sort of education necessary for him. He should then have individual study and consultation which will help him plan his school program so as to prepare for the type of work in which he is interested. This includes enough psychological and educational study so that his individual aptitudes are well understood. For the child with defective hearing, this study and consultation will take a realistic view of the limitations imposed by his handicap, and will bring to his attention the broad range of work possibilities open to him. A close tie with agencies offering specific job training should be maintained, so that there is no chance that the individual may be lost between school and training.

Specific job training should come at the time the individual is ready for it. For large numbers of children this is during the high school years; for others it is later.

Residential schools for the deaf pioneered in vocational education in this country, and continue to have a strong vocational emphasis. However, given the ideal education outlined above, there is some question as to whether special vocational training is needed by the deaf or hard of hearing. Given enough individual guidance to bring him to those types of work for which hearing is not specifically necessary, the deaf or hard of hearing child who has fluent speech and good lip reading skill should be able to use the same vocational training facilities as the hearing child.

Perhaps one of the greatest services needed by the acoustically handicapped is education of the public as to what the deaf and hard of hearing can do. The manpower shortage during the war gave many of them employment opportunities which they did not have earlier because of employers' lack of understanding of their abilities. Their excellent job performance was of the greatest educational value to the employer group. How much of this gain can be maintained in a normal labor market we do not yet know, but it is fair to assume that some of it is permanent.

In general, persons with defective hearing should be able to use the same facilities for job placement as the hearing, provided personnel in the employment service can interpret their abilities to prospective employers and follow up on actual placement to help remove any minor causes of difficulty.

Social Services—An ideal program for children with defective hearing must provide remedial services for a problem which has been well outlined by a present-day authority in special education. Speaking primarily of the hard of hearing, but in terms which are also accurate

for the deaf, and after describing the need of the deafened for medical, educational and vocational services, he says,

> ". . . above all they need understanding as personalities, help in adjusting as personalities to the crisis presented by their loss of hearing. Unless we are able to give them this understanding and help, the other aid we give them may be largely, if not wholly, futile.
>
> "The understanding they seek and need of us demands, on our part, a case work approach.
>
> "To help these personalities, we must first understand them—their essential modes of managing the realities of their living, the meanings their experiences have given them (in terms of which they interpret their loss of hearing), their relationships (the demands that other personalities make upon them, the reactions of these other personalities to their hearing loss.)"[6]

Such help and understanding of the child with hearing loss may be achieved partly through the individualization of the child's education, wherein his unique experiences are recognized, and by the maintenance of a close relationship between school, medical care program, and the community.

Special programs should, in addition, provide trained workers whose function it is to assist the child to achieve good personality adjustment and to become a well-balanced, happy, self-supporting adult. These include visiting teachers (school social workers) in the schools, caseworkers in vocational guidance and training programs, and medical social workers in ear clinics and health programs.

[6] Harvey Zorbaugh, "Hearing Loss as an Adjustive Crisis for the Personality," *Hearing News*, Vol. 13, No. 3, March, 1945.

Every child ought to have access, as needed, to the services of visiting teachers, community family and child welfare services, and child guidance clinics. However, the handicapped child, and particularly the deaf or hard of hearing child, whose handicap by its very nature may interfere with his relationship with other people, may be in special need of these services.

There is special need to make adjustment service immediately available to the individual who suffers sudden, severe loss of hearing. This is particularly true for the adolescent and adult.

Research—An ideal program would include research into such problems as the most effective methods of teaching the deaf and hard of hearing; methods of stimulating the use of residual hearing; and the most useful type of vocational program. There is every reason to believe that such research will ultimately more than pay for itself in improving services and achieving better results from them.

Coordination of Services—Only through recognition of the importance of all types of services and the necessity for their close coordination can the best interests of the deaf and hard of hearing children be served. Development of awareness of the whole program and assumption of initiative in coordinating it is properly the function of a statewide group or agency.

Such coordination of a program may be effected in any one of several ways: (1) through stimulation by voluntary organizations, (2) through interdepartmental committees representing public and private agencies, (3) through assigning the coordinating function to a public agency. However accomplished, existing public and private agencies should find it possible, through con-

tinued group discussion and planning and by working out policies of referral and exchange of information, to develop a program under which any child with defective hearing receives medical care, special education, vocational guidance and training, psychological, and welfare services as needed.

Resources in Illinois

What resources do we already have in Illinois on which we can build an ideal program such as the one outlined?

Prevention and Case-finding—On both the state and local levels, a growing body of trained public health specialists are constantly working to prevent communicable disease and to discover physical defects which can be corrected. We have legislation which permits the establishment of county health departments[7] and requires the development of a school health program with physical examination of each student every three years.[8] Both of these laws need to be implemented, but they offer a groundwork for better health protection of children, and early recognition of physical defects, including defective hearing which may be corrected or arrested.

An increasing number of health departments and school districts are establishing programs for testing the hearing of school children at regular intervals. The State Department of Public Health aids in the development of such testing programs by making audiometers available on loan to local communities.

Medical Care—Illinois is fortunate in the number of physicians there are in the state who are specialists in the treatment of diseases of the ear, nose, and throat.

[7] *Ill. Rev. Stat.*, Chap. 111½, Sec. 20c-20c15.
[8] *Ibid.*, Chap. 122, Sec. 523.4.

According to the 1946 Directory of Medical Specialists, 194 doctors in Illinois have been certified by the American Board of Otolaryngology, and are therefore trained to give special otological care. Of the certified specialists, 145 are listed as living in Cook County, and 49 downstate.

There are also, in the Chicago area, several ear, nose, throat clinics, and at least two hospitals specializing in care of ear, nose, throat diseases. One of these is the Illinois Eye and Ear Infirmary, which is the state institution where diagnostic, out-patient, and hospital facilities are available without charge to any citizen of the state who cannot afford private medical care.

The Division of Services for Crippled Children of the University of Illinois includes in its program children with hearing defects. Any child for whom a hearing examination is indicated may be examined at one of the Division's field clinics. This examination consists of an individual puretone audiometer test, an examination by a speech and hearing consultant, and a general physical examination by a pediatrician. After this clinic examination the child is referred to an otologist if this is indicated. After the child has received the necessary medical care, the Division hearing consultant assists in making recommendations for the child's special education or other needed services, such as lip reading instruction or speech correction. The services of the medical social service staff of the Division are available to any child who is registered in one of its clinics, and through this staff the child in need of further social services will be referred to the appropriate community agency.

The Division will purchase hearing aids and provide medical care if the child is financially eligible. Through its program the Division offers to children with hearing defects the most complete service available in the state.

Education—In recognition of the need for early training of deaf children there has been, since the summer of 1945, a ten-day Institute for the mothers of preschool deaf children. Held at the Illinois School for the Deaf, it is sponsored jointly by the Department of Public Welfare, the Division of Services for Crippled Children, and the Superintendent of Public Instruction. During the session the mothers are helped to understand the essential methods of instruction for a deaf child and are taught what they can do for their children at home before they reach school age.

The Chicago Society for the Hard of Hearing conducts a weekly class for the mothers of preschool children in the Chicago area which is designed to teach them how to prepare the children for entrance into a special class in the public schools. The Society also has on its staff social workers who give guidance and counsel to the parents of children with impaired hearing.

There are two resources for the education of deaf children of school age in Illinois—special classes in local public schools and the state residential school at Jacksonville. Under present legislation, state financial assistance is available to local school districts for the maintenance of approved classes for deaf and hard of hearing children. This aid is available for services to children from three to 21 years of age.

Under this program special classes were being maintained in 16 communities during the 1946-47 school year. All of these use the oral and acoustic methods and are administered by the local school board under the general supervision of the State Superintendent of Public Instruction.

Only one local school district in the state has both visiting teacher service and special classes for the deaf

and hard of hearing. In some others a cooperative arrangement has been worked out between school districts maintaining such special classes and local child guidance clinics.

A few communities offer a program for children of preschool age which combines nursery school experiences with rhythm, speech and lip reading training.

Children from 4 to 18 years of age, for whom the proper educational program is not available in the local communities attend the Illinois School for the Deaf at Jacksonville. In November 1946 the student population of this school was 397. Something over four-fifths of the pupils are instructed by use of the oral or acoustic method, the others by the manual method. The school offers academic work through the ninth grade, and vocational training in a number of trades. Children attend the school without charge, as they would any other public school. The school arranges for high school work by sending promising students to Gallaudet College, where a preparatory course is offered.

Where there is no special program for deaf children in the local public schools, the Division of Services for Crippled Children provides acoustic training, lip reading, and speech rehabilitation by private therapists to children of preschool age.

Intensive speech and rehabilitation centers are conducted by four universities each summer for children who live in communities where this training is not available. In addition to acoustic training, lip reading, and speech correction these centers attempt to offer complete psychological evaluations, diagnosis of school disabilities and remedial work, when possible, and planned group recreation and socialization activities. The Division of Services for Crippled Children assumes primary respon-

sbility for case-finding and reimburses the University for those children who are financially eligible for care under the Division's program. These programs operate from five to seven weeks during which time the children live at the center.

Ten day centers also offer instruction during the summer months, giving particular attention to children who do not have access to special services during the school year. The center maintained by the School of Speech at Northwestern University also stresses counseling and work with parents in addition to the work with the children.

The Ephpheta School for the Deaf, in Chicago, is the only private school in Illinois for deaf children. This Catholic school accepts both day and 5-day boarding pupils, and emphasizes the oral method of instruction.

The Central Institute for the Deaf at St. Louis may be considered as among private resources available to the citizens of Illinois, since it is in the metropolitan area which serves much of southern Illinois. This private, nonsectarian school is exclusively oral, and offers instruction from nursery school through the elementary grades, preparing its students to enter high school with hearing students.

A number of speech therapists qualified to test hearing and to give speech correction and lip-reading instruction are in private practice in the State although they are concentrated in the Chicago metropolitan area.

Higher education for deaf Illinois students is furthered by the State Board of Education for the Blind, Deaf, and Dumb which grants scholarship aid up to a maximum of $500 per student in any one year to deaf students regularly enrolled in a college, university, or professional or vocational school.

Teacher-Training—Some training of teachers of the deaf and/or hard of hearing is offered by Illinois State Normal University, MacMurray College, Northwestern University, and the University of Illinois. Training in the different colleges varies in content and in the clinical facilities available for training. None of these schools at this time offers a complete curriculum which prepares teachers to meet the standards established by the State Superintendent of Public Instruction for teachers of special classes in local school districts.

Vocational Training and Placement—The State Vocational Rehabilitation Service serves persons with defective hearing as well as persons with other types of physical handicap. The staff includes a special field agent for the deaf who uses the manual language, and places in employment persons who have no useable speech as well as those with lesser hearing defects. Hearing aids are purchased as a part of rehabilitation service when the individual has a definite promise of employment. Services of a medical social work consultant and clinical psychologist specially trained in the examination of persons with sensory handicaps are available to assist in working out a rehabilitation plan. Funds are available for medical care which is of vocational significance though these have not yet been used to any appreciable extent. To be eligible for service an individual must be over 16 years of age, a resident of Illinois, and have a physical disability which constitutes a handicap for employment.

Psychological Services—In the Chicago school system, children with impaired hearing have access to the services of adjustment teachers in the individual schools and to the Bureau of Child Study, which offers special-

ized psychological services to all school age children as needed.

Psychological and psychiatric services are available through the Institute for Juvenile Research, both at the Chicago headquarters and through its community child guidance clinics in different parts of the state. The psychological staff of the Institute have devised examination procedures especially adapted to individuals with defective hearing.

Unmet Needs

Despite the existence of important resources for service to deaf and hard of hearing children in Illinois when they are examined in the light of an ideal program, it is evident that all the needs are not yet being adequately met. It is important, therefore, as a basis for formulating a sound program for these children, to examine the situation to see just where there are gaps in service.

Case-finding and Prevention—That much hearing loss is preventable has been established beyond question. The fact that many children with hearing defects due to preventable causes are currently coming to the attention of doctors, schools, and other agencies is proof that the preventive aspect of the program is not yet adequate. Among the preventable causes of hearing loss are the complications of communicable diseases against which public health measures such as immunization or quarantine are highly effective. There are others which are not entirely preventable, but which respond well to prompt and efficient medical care, so that hearing loss is eliminated or minimized.

Many cases of hearing loss in children are still going unrecognized for long periods of time or are not getting to special services as they are needed, pointing to inadequate case-finding methods. As a result, the child is more handicapped than he needs to be, sometimes temporarily, and too often permanently, beyond the ability of medicine or education to help. Inadequacies in prevention and case-finding of hearing defects may be due not only to lack of enough public health services but also to insufficient training of public health personnel to date in the recognition and handling of hearing loss.

In the area of medical care, too many children are getting too little care too late. This is particularly a problem outside the Chicago metropolitan area, since downstate there are relatively few otologists in practice, and no special ear clinics or hospitals. The problem of getting young medical specialists into the more rural areas is generally recognized as of great importance in meeting the needs of a large share of the population, and is of great importance to the acoustically handicapped. Even in areas where there is a sufficient number of specialists, family financial problems may keep children from getting expert medical care when needed.

Education—Educational services to the preschool deaf child and his family are not adequate. Although several downstate communities have set up facilities in the public schools for preschool deaf children, for most of the state outside the Chicago metropolitan area the only resource for the preschool deaf child is the State School, and many families understandably object to removing the preschool child from his own home for long periods of time. There is now no adequate counseling service to these families, to help them understand the child's prob-

lem, what they can do for him at home, and what educational plan will be most helpful to him.

At the present time public education of the deaf and hard of hearing is not integrated, so that the state residential school for the deaf and the day school classes for the deaf and hard of hearing have no organic relationship to each other which would facilitate transfer of the child from one to the other as his requirements indicate.

Day school instruction of the deaf and hard of hearing, with its advantages of keeping the child in his normal home setting and in association with hearing children, is still not available in most school districts of the state, including a number with population sufficiently large to be able to maintain such a program. This lack is due to a number of factors, including inadequate case-finding, lack of understanding of the community's need for such facilities, lack of specially trained teachers at the present time, and inadequate financial resources to support the program even with state aid. The last of these factors is frequently related to the fact that school districts are so small that they do not have resources to meet the needs of children living in them. Facilities for lip reading instruction in the state, including those in the public schools, in private centers, and including also the speech therapists practising privately, are inadequate.

The state residential school for the deaf does not have a fully adequate program for the children whom it serves, and its share of responsibility in the total public educational program for the acoustically handicapped child in Illinois has not been clearly defined. The school has also lacked sufficient medical and social information in many cases to be able properly to individualize the program for the children after their admission.

Although the school has a number of modern, well-built dormitory buildings, it has such very large living units, with so few cottage parents, that the child's out-of-school-hour experience cannot be regarded as even a reasonably adequate substitute for his own home. Recreational facilities have also been inadequate, particularly for the younger children, whose need for growth experience throughout their waking hours is very urgent.

About a fifth of the students at the school are taught entirely by the manual method, and leave the school unable to communicate with the hearing through speech and lip reading. There has not been sufficient study to establish whether this percentage is an irreducible minimum—the fact that some of the outstanding schools for the deaf in the country operate on an entirely oral basis raises the question as to whether it is actually necessary to retain the manual method of instruction, with all its implications for permanent social isolation of the deaf individual within the comparatively small group of the manual deaf. Although some effort has been made to keep children being taught by the acoustic and oral methods free from exposure to signs, this has not been sufficiently successful. The motivation and encouragement in constant use of speech and lip reading which are essential to development of skill and fluency also appear to be inadequate.

The vocational program of the school is admittedly inadequate, in staff, buildings, equipment, and range of instruction. There is no plan of prevocational study and vocational guidance. Academic instruction is offered only through the ninth grade, and no curriculum is offered for the student who is ready for high school but is not prepared to attend the local public schools with hearing students. The plan of sending such students to

Gallaudet College for their preparatory work is not an adequate substitute, since Gallaudet uses the manual method exclusively.

Illinois has no adequate facilities especially adapted to the needs of children who have both a hearing loss and mental retardation. The public schools make no provision for mentally retarded children in their deaf-oral classes nor any provision for children with impaired hearing in their classes for the mentally retarded, and the state institutions for the mentally handicapped at Lincoln and Dixon make no provision for training deaf children committed to them.

There is ample evidence that the success of educational programs for deaf or hard of hearing children depends to a considerable extent on close cooperation and understanding between the home and the school. There is much yet to be done in parent education among the families of preschool and school age deaf and hard of hearing children.

Successful education of children with defective hearing requires an adequate supply of highly trained and well qualified teachers. There is currently a decided shortage of such teachers, and at present adequate training facilities for teachers in the state are lacking.

Vocational Guidance and Training—Together with their hearing contemporaries, children with hearing defects are not getting adequate vocational guidance and training in the local public schools. This is a serious lack for all children, but particularly for those who are at a disadvantage vocationally without special services. The facilities and range of vocational training in the state residential school are inadequate. To date the program of the state vocational rehabilitation service to the young

deaf or hard of hearing person has been inadequate both in quantity and quality. There has been little, if any, coordination between the local or residential schools and the Division of Vocational Rehabilitation.

Because there are not sufficient child welfare services in Illinois, the child with impaired hearing, as well as other children in need of welfare services, may not receive the help necessary to him. Such help calls for social casework, psychological, and psychiatric services, according to the individual need.

Coordination—Insufficient coordination between programs for the deaf and hard of hearing results in gaps in service both geographically and functionally. Children not only can be but are lost between agencies, and may receive very good service of one type, such as education or medical care or vocational guidance, but due to inadequate follow-up may not receive the other services which they require. This results in ineffective service, which is not only costly but which does not attain the goal of having every deaf or hard of hearing child become a happy and useful adult citizen.

Recommendations

Certain specific recommendations can be made on the basis of examination of existing resources and unmet needs of deaf and hard of hearing children in Illinois.

Full time public health units should be established in every county and staffed by trained personnel in adequate numbers.

School nursing services should be provided for every school.

Training of all public health workers should include instruction in the importance of early recognition and

treatment of hearing loss, and the training of public health nurses specifically should include instruction in the use of the group audiometer and conduct of a hearing testing program.

Illinois should establish a child accounting system to provide for an annual census of all children under 21 years of age and for reporting to a central agency any child showing evidence of a physical or mental defect. Such an accounting system might be an appropriate responsibility of the State Superintendent of Public Instruction.

The existing school health examination law should be implemented, assuring to every school child the benefits of periodical and thorough medical examination, leading to early detection of defects and early remedial measures. The medical examination should include or be supplemented by a hearing test which follows the standards outlined by the American Academy of Ophthalmology and Otolaryngology.

To assure availability to specialized medical care throughout Illinois, some plan must be made to get otological service to areas in which it is not now present. To make otological service available to the whole population specialists should be encouraged to establish practice in areas not now served, and provision should be made for traveling or periodic clinics.

The whole public educational program for the deaf and hard of hearing in Illinois whether in residential or day schools should be integrated under the supervision of the State Superintendent of Public Instruction. This would assure that every child with defective hearing would attend school in the program best suited to meet his educational needs. Such integration is possible by interdepartmental agreement between the State Super-

intendent of Public Instruction and the State School for the Deaf.

Counseling service to the families of all preschool deaf children should be a part of the total program, and should be given by qualified personnel on the staff of an appropriate state agency. Preschool training should be available to every deaf child in the state, regardless of where he lives.

The present day school program for deaf and hard of hearing children should be extended and strengthened. Every school district which has a sufficient number of children with hearing defects to establish a special class should do so, and school districts should combine to support a special class wherever this procedure makes it possible to establish a class which a single district alone could not carry. A program of community education as to the needs of children with hearing defects should be carried on by schools and other interested agencies, in order to improve case-finding and to assist in the establishment and maintenance of special education facilities.

A school district reorganization program should be carried on throughout the state, after the necessary legislation, so that school districts will be sufficiently large units to be able to support needed special education. In extremely rural areas where scattered population would offer a problem even after reorganization, the use of itinerant teachers to help acoustically handicapped children who can remain in their regular classes should be explored.

Children should be admitted to the State School only after complete study as outlined above, so that the child's need for the school's services and the fact that his needs can best be met by the residential school are clearly established.

There should be reorganization of the State School and addition of staff to the point where the child has the most adequate possible substitute for his own home while he is attending school. Every effort should be made to develop smaller living groups. There should be enough hearing cottage parents, with suitable background for such work, so that the child has adequate personal attention. Through cottage parents and recreational personnel, equipment, and planning, the child's out-of-school hours should be satisfying and creative.

The child who completes the elementary grades at the State School should have opportunity to go on through high school if his ability and interest justify it, just as in the case of the hearing child. The break between elementary and high school seems to offer a strategic time to get the child who has been attending school in a segregated setting back into normal contacts with hearing people of his age, and it therefore seems wise to plan for most of the students to return to high school in their own communities if speech therapy is available.

Use of the facilities of the State School for short-time, intensive service in special cases, such as for a suddenly deafened individual, should be explored.

The state should establish a framework for service to deaf-blind children, so that as any such children are located, their individual needs can be met. Unless improved care-finding methods bring to light a sufficient number of such children to justify establishment of a special center for their care in one of the Illinois state schools, the possibility of paying for their care in a special center outside the state should be explored.

Educational programs for the mentally handicapped, whether in residential or day schools, should include any

indicatel special service to meet the needs of children who also have hearing defects.

Parent education should be regarded as an essential part of educational program for deaf or hard of hearing children, and all schools serving such children, whether day or residential, should recognize this responsibility.

An active recruitment program should be carried on to encourage promising undergraduates and persons already engaged in teaching to take the specialized training which will prepare them for teaching the deaf and hard of hearing.

The vocational needs of acoustically handicapped children will best be met as all children receive better vocational services. It is therefore recommended that vocational guidance be recognized as an integral part of every public school program, beginning at the junior high school level and continuing through the high school grades. Where the school cannot itself employ qualified personnel to carry on such guidance, it should be secured through cooperative agreement with other agencies.

For the deaf child who is not going on with academic high school work, vocational training might well be offered in the State School, if the child comes from a community where vocational training in the schools is not well developed. The State School should therefore have a rounded vocational program, including individual guidance and a broad range of vocational training.

The total program of the State Vocational Rehabilitation Service should be strengthened and extended through the employment of trained personnel chosen on a merit basis and all agencies dealing with deaf and hard of hearing children should establish closer working relationships with this Division.

Wherever possible a school district maintaining special classes for the deaf or hard of hearing should have visiting teacher and psychological service, available to these children as well as to others. Where a local school district maintaining a special class cannot itself provide social and psychological service, it should establish close relationship with local child welfare and family welfare agencies or child guidance clinics. The school should recognize its responsibility for helping to stimulate community awareness of the need for such facilities.

It is recommended that there be established a committee on the state level made up of representatives of public and private agencies interested in the deaf and hard of hearing. Such a committee could examine the adequacy in quality and extent of present services, plan for the establishment of additional services to attain a total program, to bring about closer coordination among services, and to carry on a program of education of the public. As a continuing planning group this committee could contribute greatly to Illinois' meeting more adequately its responsibility to the deaf or hard of hearing child.

Suggestions for Further Reading

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Excellent discussion of problems and procedures in education of the handicapped, including the deaf and hard of hearing.

Heck, Arch O. ***The Education of Exceptional Children.*** New York: McGraw-Hill Book Co., 1940. 536p.

A comprehensive discussion of this subject, including sections on education of the deaf and the hard of hearing child.

Hill, Ada Morgan. "Vocational Problems of the Hard of Hearing." ***Vocational Guidance Magazine.*** (Now *Occupations*) 10:360ff; May 1932.

A realistic presentation of what the hard of hearing person faces in getting a job.

Illinois State Office of Public Instruction. ***Basic Plan for Health Education and the School Health Program.*** Springfield, Ill.; The Office, The Department of Public Health, and the Department of Registration and Education, 1944. 80p.

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McLeod, Beatrice. ***Teachers' Problems with Exceptional Children,*** Part IV, ***Deaf and Hard of Hearing Children.*** U.S. Dept. of the Interior, Office of Education, Pamphlet No. 54. Washington, D. C.: Government Printing Office, 1934. 29p.

Discusses the problems of acoustically handicapped school children, and what the classroom teacher can do about them.

Macnutt, Ena G. "The Hard of Hearing Child in School." ***Public Health Nursing*** 31:47ff; January 1939.

The public health nurse's part in a school hearing program after hearing loss is diagnosed.

Martens, Elise H. ***Parents' Problems with Exceptional Children.*** U.S. Dept. of the Interior, Office of Education, Bulletin 1932, No. 14. Washington, D. C.: Government Printing Office, 1932. 72p.

Helps parents in understanding what the handicapped child needs. Children with defective hearing are covered in the discussion, although most of it applies to all handicapped children.

Martens, Elise H. ***Residential Schools for Handicapped Children.*** U.S. Dept. of the Interior, Office of Education, Bulletin 1939, No. 9. Washington, D. C.: Government Printing Office, 1939. 103p.

Outlines standards for residential schools for the handicapped, including a section on schools for the deaf.

Montague, Harriet. "The Deaf and the Hard of Hearing." ***Social Work Yearbook.*** New York: Russell Sage Foundation, 1945. p. 129ff.

An excellent current general discussion covering aspects of problems of those with hearing loss of special interest to social workers.

Montague, Harriet. "How to Help the Hard of Hearing —Suggestions for their Families and Friends." ***Volta Review.*** 46:345ff; June 1944.

Practical suggestions as to how families and friends can help those who have lost hearing.

Montague, Harriet. "Jobs for the Hard of Hearing." ***Volta Review.*** 41:219ff; April 1939.

Sound vocational advice to the hard of hearing, including a description of some of the federal civil service jobs held by hard of hearing persons.

New, Mary C. "Speech Suggestions for the Hard of Hearing." ***Hearing News.*** 13:3, p.12ff; March 1945.

Describes what may happen to the speech of the deafened, and what can be done in both prevention and correction.

Russell, Lillian E. "Beginning Lip Reading—Suggestions for Work Mothers Can Do at Home." ***Volta Review.*** 42:10, p.687ff; October 1940.

Detailed information for parents on beginning lip reading instruction and related activities for preschool deaf children. Includes a list of materials to be used in instruction, etc.

Simon, Arthur B. "This World and Deaf People." ***Volta Review.*** 45:485ff; September 1943.

Good evidence from personal experience on the advantages of instruction by the oral method and associating deaf children with the hearing.

Sutherland, Dorothy A. and Miller, Maxine. "Rehabilitating the Hard of Hearing Child." ***The Child.*** 9:4, p.51ff; October 1944.

Report on a project for rounded medical and social service to hard of hearing children. Shows the function of the medical social worker in such service.

Timberlake, Josephine. "The Deaf Child and the Hard of Hearing Child." ***Volta Review.*** 25:9, p.396ff; September 1932.

Distinguishes between the deaf and the hard of hearing child and the educational methods needed by each.

Tracy, Louise Treadwell. ***Suggestions to the Parents of Deaf and Hard of Hearing Children.*** Los Angeles: John Tracy Clinic, n.d. 7p.

Excellent general instruction in very readable language, based on Mrs. Spencer Tracy's own experience.

Winston, Matie E. "What the Parent Can Do for the Preschool Child." ***Volta Review.*** 35:10, p.411ff; October 1933.

A summary of the essential points parents need to understand in the care of the preschool deaf child.

White House Conference on Child Health and Protection. Section III. ***Special Education, the Handicapped and the Gifted.*** New York: Century Co., 1931. 604p.

————————, Section IV. ***The Handicapped Child.*** New York: Century Co., 1933. 452p.

Detailed material on problems and needs of handicapped children, including sections on the deaf and the hard of hearing child. Many interesting data, though some of the material is now dated and no longer entirely accurate.

Hearing News—monthly—official organ of the American Society for the Hard of Hearing, Washington, D. C.

A wide range of material about and of interest to the hard of hearing.

The Volta Review—monthly—The Volta Bureau, Washington, D. C.

Material about and by both the deaf and the hard of hearing. Includes much about the oral education of young deaf children.

In addition to the above specific references, many valuable reprints and other printed material about the deaf or hard of hearing can be secured through the American Society for the Hard of Hearing and The Volta Bureau, both located in Washington, D. C.